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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,339	11/26/2001	Peter Yeung	031941-097	7426

27045 7590 06/01/2004

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EXAMINER

SANTOS, PATRICK J D

ART UNIT PAPER NUMBER

2171

DATE MAILED: 06/01/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/994,339

Applicant(s)

YEUNG, PETER

Examiner

Patrick J Santos

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4 - 2/25/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 25 is objected to because of the following informality: the acronym "DTD" is erroneously spelled "DTL" (Specification: p. 37, ln. 31) as a result of a typographic error. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1, 18, and 26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Specifically, the wording of Claims 1, 18, and 26, make no mention of the platform that the claimed arrangement / system / method is to run on. According to MPEP § 2106, "A process that consists solely of the manipulation of an abstract idea is not concrete or tangible." The claims appear to be a particular implementation of the well known Page-Emissary-Fiefdom design pattern, where the a form implemented with a generic mark up language plays the role of an Emissary. Design patterns are the object-oriented analogue of a data structure. Data structures, and by analogue, design patterns, which are abstract ideas, are therefore not concrete or tangible.

4. In order to expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (non-statutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, Claim 1 uses the term “arrangement” (Specification, p.34, ln. 3). Since the public cannot determine whether Claim 1 is directed towards a method or an apparatus, the phrase “arrangement” renders Claim 1 indefinite. Dependent Claims 2-17 inherit same defect.

7. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, Claim 10 uses the phrase, “or similar” (Specification: p. 35, ln. 14). Since the extent that two items are “similar” is subjective, the public cannot determine the point that one may infringe upon the claim. Therefore the phrase, “or similar” renders Claim 10 indefinite.

***Claim Rejections - 35 USC § 102***

Art Unit: 2171

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-2, 8, 10-15, 18-19, 21-22, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application No. 2002/0059425 by to Belfiore et al., filed June 22, 2001, claiming a provisional date of June 22, 2000 (hereafter Belfiore '425).

Claim 1:

Regarding Claim 1, Belfiore '425 discloses the page-emissary-fiefdom architectural pattern as embodied in .NET (TM), Microsoft Corporation's well known Service Oriented Architecture (SOA) distributed architecture. Specifically, Belfiore '425 discloses: an arrangement for handling an exchange of information between an information requesting side and an information providing side (Belfiore '425: para [0016]), the information requesting side comprising an information requesting application and the information providing side comprising an information providing application (Belfiore '425: paras [0017], [0058], and [0167]), wherein between said information requesting and information providing applications an agreement is created specifying what information is exchangeable therebetween (Belfiore '425: para [0018]), said agreement being represented by a form (Belfiore '425: paras [0053] and [0057] – note that the "emissaries" of Belfiore '425 read on a form), the form being filled in by, and communicated between, the requesting and providing applications in both directions, being related to requesting

data and/or providing data (Belfiore '425: Fig. 2, para [0057], note the access of the emissary by both the page and the fiefdom), and being implemented and communicated using a generic mark up language (Belfiore '425: paras [0018] and [0053]).

Claims 2 and 8:

Regarding Claims 2 and 8, Belfiore '425 discloses all the limitations of Claim 1 (supra). Additionally, Belfiore '425 discloses:

- (Claim 2) the generic mark up language is XML (Belfiore '425: para [0053]).
- (Claim 8) server means are associated with the requesting and providing applications respectively (Belfiore '425: para [0052], clm. 1).

Claims 10:

Regarding 10, Belfiore '425 discloses all the limitations of Claim 2 (supra). Additionally, Belfiore '425 discloses the XML form is independent of the structural implementation of any information holding/providing database or similar (Belfiore '425: paras [0053] and [0067] – note that an XML DTD is independent of structural implementation external to the message itself).

Claim 11:

Regarding Claim 11, Belfiore '425 discloses all the limitations of Claim 10 (supra). Additionally, Belfiore '425 discloses the agreement a basic or general DTD is given, which is used when building a basic XML form to be filled in (Belfiore '425: paras [0018] and [0067] – note discussion regarding DTD and the larger discussion regarding “schema”).

Claim 12:

Regarding Claim 12, Belfiore '425 discloses all the limitations of Claim 11 (supra). Additionally, Belfiore '425 discloses validating means are provided for validation of a request (Belfiore '425: para [0153]).

Claim 13:

Regarding Claim 13, Belfiore '425 discloses all the limitations of Claim 12 (supra). Additionally, Belfiore '425 discloses the validating means comprises end user controlled, user unique DTDs stored in information holding means, and a filled in XML form from a requesting application is validated against the appropriate end user unique DTD to establish whether the request is allowed or not (Belfiore '425: paras [0018] – note the discussion regarding DTD and note the discussion regarding security infrastructure).

Claim 14:

Regarding Claim 14, Belfiore '425 discloses all the limitations of Claim 13 (supra). Additionally, Belfiore '425 discloses with the requesting and providing applications respective access means, plug-in server means are provided (Belfiore '425: paras [0053] and [0054] – note that the emissary pattern can host controls which read on plug-in server means), which in communication with central protection server means from a personal protection profile network, said central server means comprising or communicating with personal protection profile holding means (Belfiore '425: para [0022] – note the discussion regarding “mega-store”).

Claim 15:

Regarding Claim 15, Belfiore '425 discloses all the limitations of Claim 14 (supra). Additionally, Belfiore '425 discloses the personal protection profile holding means holds end user unique personal protection profiles specifying which data within personal profiles are

accessible to which applications, and said personal protection profiles comprise user unique DTDs that are end user controlled (Belfiore '425: para [0019] – note the discussion regarding user preference information).

Claim 18:

Regarding Claim 18, Belfiore '425 discloses: a data communication system providing communication between a number of applications comprising and/or communicating with service/information/content providers or holding means that hold end user personal profile data (Belfiore '425: Abstract, paras [0015], [0016], and [0019] – note discussion regarding user preferences), wherein between each intercommunicating pair of applications an agreement is created to define what information is allowed to be transferred between the applications, bidirectionally or unidirectionally, information about agreements is stored in agreement information holding means (Belfiore '425: paras [0018] and [0067] – note discussion regarding DTDs and schemas), said agreements are represented as forms to be filled in and transferred between an information requesting application and an information providing application (Belfiore '425: paras [0057], [0051], [0052], and [0053] – note the “emissary” pattern reads on a form), and a generic mark up language is used for implementation and communication of said forms (Belfiore '425: para [0053] – note discussion of XML).

Claim 19:

Regarding Claim 1, Belfiore '425 discloses all the limitations of Claim 18 (supra). Additionally, Belfiore '425 discloses the generic mark up language is XML (Belfiore '425: para [0053] – note discussion of XML).

Claims 21-22:



Regarding Claims 19 and 21-22, Belfiore '425 discloses all the limitations of Claim 18 (supra). Additionally, Belfiore '425 discloses:

- (Claim 21) agreements are held by the respective applications between which an agreement has been established or by means associated therewith, and in that said agreements comprise DTDs (Belfiore '425: paras [0018], [0053], and [0067] – note discussion regarding DTD and the larger discussion regarding “schema”).
- (Claim 22) the system comprises a personal profile protection network, comprising access means associated with each respective application and central protection server means, comprising or communicating with information holding means, whereby said information holding means comprise said agreement holding means (Belfiore '425: paras [0018] and [0022] – note the discussion regarding DTD and note the discussion regarding security infrastructure and further note the discussion regarding “mega-store”).

Claim 25:

Regarding Claim 25, Belfiore '425 discloses all the limitations of Claim 22 (supra). Additionally, Belfiore '425 discloses validating means comprising end user controlled, user unique DTDs or personal protection profiles stored in the information holding means, an XML form from a requesting application being validated against the appropriate user unique DTD to establish whether the request is allowed or not (Belfiore '425: paras [0018] and [0019] – note the “mega-store” of Belfiore '425 protected by a security infrastructure, and further note user preferences stored in schema).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 3-5, 9, 20, 23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belfiore '425 in view of the publication, "Beginning SQL Server 2000 (TM) for Visual Basic (TM) Developers" by Willis, published by Wrox Press 1999, and released to web at [http://www.sql-server-performance.com/tw\\_sample\\_chapter/contents.htm](http://www.sql-server-performance.com/tw_sample_chapter/contents.htm) (hereafter Willis '99).

**Claim 3:**

Regarding Claim 3, Belfiore '425 discloses all the limitations of Claim 1 (supra). Additionally, Belfiore '425 discloses the form comprising an XML tree (Belfiore '425: para [0047]). However, Belfiore '425 does not explicitly disclose the XML tree tagged with information about data to be "set", retrieved, or data that is provided.

Willis '99 discloses the well-known concept of XML Templates, a means to specify a query in an XML document and then to receive a populated XML tree with the requested data. Specifically Willis '99 discloses the XML tree tagged with information about data to be "set", retrieved, or data that is provided (Willis '99: page 1 of 5, section titled, "XML Templates", note in particular the sample XML tree).

It would have been obvious to a person having ordinary skill in the art to augment the XML tree of Belfiore '425 with the functionality of the XML Templates of Willis '99. The

motivation to combine is suggested by Willis '99 which discloses the benefit that the amount of data in the URL is reduced (Willis '99: page 1 of 5, section titled, "XML Templates", note in particular the second paragraph).

Claim 4:

Regarding Claim 4, Belfiore '425 and Willis '99 in combination disclose all the limitations of Claim 3 (supra). Additionally, Belfiore '425 and Willis '99 in combination disclose the form comprises an XML tree with queries in the form of attributes and element data to be given values (Willis '99: page 3 of 5, section titled, "XML Templates that Accept Parameters" – note that the parameters are expressed as XML attributes and elements).

Claim 5:

Regarding Claim 5, Belfiore '425 and Willis '99 in combination disclose all the limitations of Claim 4 (supra). Additionally, Belfiore '425 and Willis '99 in combination disclose analogous attributes for one or more of "from", "get", "null", "error", and "set"; specifically, "sql:query" (Willis '99: page 1 of 5, section titled, "XML Templates", note in particular the sample XML tree).

Claim 9:

Regarding Claim 9, Belfiore '425 and Willis '99 in combination disclose all the limitations of Claim 8 (supra). Additionally, Belfiore '425 and Willis '99 in combination disclose the providing application comprises means for converting a received XML form to a database call of SQL format, and the requested information is entered/filled in on the form on the providing side for retransmittal to the requesting application (Willis '99: pages 1-2 of 5, section

titled, "XML Templates" – note the formatted XML returned (described in the last two paragraphs and the last figure of the section)).

Claim 20 and 23:

Regarding Claims 20 and 23, Belfiore '425 discloses all the limitations of Claim 19 (supra). Belfiore '425 does not explicitly disclose:

- (Claim 20) the forms comprise XML trees tagged with information about data to the "set" or "get" by the requesting application or with data to be provided.
- (Claim 23) attributes and elements are used in the XML tree form, which attributes and elements are given the appropriate values/data, which constitutes filling in the form.

Willis '99 discloses:

- (Claim 20) the forms comprise XML trees tagged with information about data to the "set" or "get" by the requesting application or with data to be provided (Willis '99: page 1 of 5, section titled, "XML Templates", note in particular the sample XML tree).
- (Claim 23) attributes and elements are used in the XML tree form, which attributes and elements are given the appropriate values/data, which constitutes filling in the form (Willis '99: page 3 of 5, section titled, "XML Templates that Accept Parameters" – note that the parameters are expressed as XML attributes and elements).

It would have been obvious to a person having ordinary skill in the art to augment the XML tree of Belfiore '425 with the functionality of the XML Templates of Willis '99. The motivation to combine is on the same basis as Claim 3 (*supra*).

Claim 26:

Regarding Claim 26, Belfiore '425 discloses: a method for exchanging information between an information requesting application and an information providing application having established an agreement to specify which information is allowed to be transferred between the information requesting and information providing applications, the method comprising the steps of (Belfiore '425: Abstract):

- creating, using a generic mark up language, a form with elements and attributes wherein the attributes are used to indicate element(s) to be filled with data, according to the agreement (Belfiore '425: paras [0018] and [0067] – note discussion regarding DTDs and schemas; and paras [0057], [0051], [0052], and [0053] – note the “emissary” pattern reads on a form).
- transferring the filled in form tagged with information relating to requested data from the requesting application to the providing application (Belfiore '425: paras [0057], [0051], [0052], and [0053] – note the “emissary” pattern accesses data in the “fiefdom” pattern);
- receiving the form at the receiving application (Belfiore '425: paras [0057], [0051], [0052], and [0053] – note the “emissary” pattern accesses data in the “fiefdom” pattern);

- accessing information holding means (Belfiore '425: paras [0057], [0051], [0052], and [0053] – note the “emissary” pattern accesses data in the “fiefdom” pattern);
- if the request relates to retrieving data:
  - o filling in the form using data retrieved from an information holding site and returning the requested information to the requesting application (Belfiore '425: paras [0057], [0051], [0052], and [0053] – note the “emissary” pattern accesses data in the “fiefdom” pattern), otherwise;
  - o setting data according to the tagged form in the information holding means according to the request (Belfiore '425: paras [0057], [0051], [0052], and [0053] – note the “emissary” pattern accesses data in the “fiefdom” pattern (accessing reads on reading and writing)).

However, Belfiore '425 does not explicitly disclose:

- converting the request form to a database call; or
- accessing information holding means using a database call.

Willis '99 discloses the well-known concept of XML Templates, a means to specify a query in an XML document and then to receive a populated XML tree with the requested data.

Specifically Willis '99 discloses:

- converting the request form to a database call (Willis '99: page 1 of 5, section titled, “XML Templates”, note eighth paragraph noting the SQL query (a SQL query reads on a database call), and note sample XML Template with the SQL call); and
- accessing information holding means using a database call (Willis '99: page 1 of 5, section titled, “XML Templates”, note eighth paragraph noting the SQL query (a

SQL query reads on a database call), and note sample XML Template with the SQL call).

It would have been obvious to a person having ordinary skill in the art to apply the database calls in the XML templates of Willis '99 to the distributed architecture of Belfiore '425. The motivation to combine is on the same basis as Claim 3 (supra).

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Belfiore '425 in view of the web site <http://xml.apache.org/index.html> as archived by the Wayback Machine (<http://www.archive.org>) on June 7, 2000 (hereafter Apache '00).

Claim 6:

Regarding Claim 6, Belfiore '425 discloses all the limitations of Claim 2 (supra). Additionally, Belfiore '425 discloses an XML form is implemented and sent to a data providing side (Belfiore '425: para [0156], clms. 2 and 3). However, Belfiore '425 is non-specific as to the mode of transfer of the XML.

Apache '00 discloses the Xerces open source XML parser which is W3C XML and DOM compliant. Specifically, this implies support of XML transfer as an XML string (Apache '00: see paragraph titled, "Xerces: XML parsers in Java and C++ (plus Perl and COM)).

It would have been obvious to a person having ordinary skill in the art to apply the Xerces XML parser to the Belfiore '425 distributed architecture. The motivation to combine is suggested by Apache '00, which discloses that Xerces provides a commercial quality implementation, that guarantees open source standards compliance (Apache '00: see paragraph titled, "Welcome to the Apache XML Project")

Claim 24:

Regarding Claim 24, Belfiore '425 discloses all the limitations of Claim 19 (supra). However, Belfiore '425 does not explicitly disclose the XML form is implemented as an XML DOM node tree object, and communicated between applications as an XML string, transforming/parsing means being provided in the applications for transforming the XML DOM node tree object to an XML string for parsing the XML string to the XML DOM node tree object.

Apache '00 discloses the Xerces open source XML parser which is W3C XML and DOM compliant. Specifically this implies support for: the XML form is implemented as an XML DOM node tree object, and communicated between applications as an XML string, transforming/parsing means being provided in the applications for transforming the XML DOM node tree object to an XML string for parsing the XML string to the XML DOM node tree object (Apache '00: see paragraph titled, "Xerces: XML parsers in Java and C++ (plus Perl and COM)).

It would have been obvious to a person having ordinary skill in the art to apply the Xerces XML parser to the Belfiore '425 distributed architecture. The motivation to combine is on the same basis as Claim 6 (supra).

13. Claims 7 and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belfiore '425 and Willis '99 in view of Apache '00.

Claim 7:



Regarding Claim 7, Belfiore '425 and Willis '99 in combination disclose all the limitations of Claim 6 (*supra*). Additionally, Belfiore '425 and Willis '99 in combination disclose the tagged XML form and transforming/parsing means are provided in the applications for transforming XML objects to XML strings, using an XSL transformation style sheet (XSLT), and for parsing the XML strings to the XML document respectively (Belfiore '425: para [0081] and Willis '99: page 1 of 5, section titled, "XML Templates", note in particular the third line of the sample XML tree which specifies an XSL style sheet). However, Belfiore '425 and Willis '99 in combination do not explicitly disclose that the XML form is implemented as an XML DOM node object, but rather are non-specific as to the implementation.

Apache '00 discloses the Xerces open source XML parser which is W3C XML and DOM compliant. Specifically, this implies support of XML transfer as an XML DOM node object (Apache '00: see paragraph titled, "Xerces: XML parsers in Java and C++ (plus Perl and COM)).

It would have been obvious to a person having ordinary skill in the art to apply the Xerces XML parser to the distributed architecture of the Belfiore '425 and Willis '99 combination. The motivation to combine is suggested by Apache '00, which discloses that Xerces provides a commercial quality implementation, that guarantees open source standards compliance (Apache '00: see paragraph titled, "Welcome to the Apache XML Project")

Claim 27:

Regarding Claim 27 Belfiore '425 and Willis '99 in combination disclose all the limitations of Claim 26 (*supra*). Additionally, Belfiore '425 and Willis '99 in combination disclose the generic mark up language is XML, and in that the form comprises an XML tree with

attributes used to indicate elements to be filled with data according to established agreements (). However, Belfiore '425 and Willis '99 in combination is non-specific as to the form of the XML tree.

Apache '00 discloses the Xerces open source XML parser which is W3C XML and DOM compliant. Specifically, this implies support of XML trees both in DOM object form or in string form (Apache '00: see paragraph titled, "Xerces: XML parsers in Java and C++ (plus Perl and COM)).

It would have been obvious to a person having ordinary skill in the art to apply the Xerces XML parser to the distributed architecture of the Belfiore '425 and Willis '99 combination. The motivation to combine is on the same basis as Claim 7 (supra).

Claims 28-30:

Regarding Claims 28-30, Belfiore '425, Willis '99, and Apache '00 in combination disclose all the limitations of Claim 27 (supra). Additionally, Belfiore '425, Willis '99, and Apache '00 in combination disclose:

- (Claim 28) wherein the agreement comprises a DTD (Belfiore '425: paras [0018] and [0067] – note discussion regarding DTD and the larger discussion regarding “schema”);
- (Claim 29) further comprising the step of: communicating the XML form tagged with information as an XML string (Apache '00: see paragraph titled, "Xerces: XML parsers in Java and C++ (plus Perl and COM) – note that the Xerces parser supports XML string data).

- (Claim 30) further comprising the step of, if the XML form is implemented as an XML object, converting the XML object to an XML string in the requesting/providing applications respectively for transportation between the applications (Apache '00: see paragraph titled, "Xerces: XML parsers in Java and C++ (plus Perl and COM) – note that the Xerces parser supports XML objects).

Claim 31:

Regarding Claim 29, Belfiore '425, Willis '99, and Apache '00 in combination disclose all the limitations of Claim 27 (supra). Additionally, Belfiore '425, Willis '99, and Apache '00 in combination disclose further comprising the step of: validating the XML tree against a user unique DTD stored in personal protection profile holding means; and providing information as allowed according to the outcome of the validation (Belfiore '425: paras [0018] and [0019] – note the "mega-store" of Belfiore '425 protected by a security infrastructure, and further note user preferences stored in schema).

14. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belfiore '425 and Willis '99 in view of the USENIX column, "Using Java" titled, "Remote Method Invocation" by Rao, last changed Nov. 16, 1999, available on the web at <http://www.usenix.org/publications/java/usingjava17.html> (hereafter Rao '99).

Claim 16:

Regarding Claim 16, Belfiore '425 and Willis '99 in combination disclose all the limitations of Claim 15 (supra). However, Belfiore '425 and Willis '99 in combination do not

explicitly disclose an application and its associated access means communicate by means of XML objects in XML transport objects using RMI or CORBA.

Rao '99 discloses use of RMI (remote method invocation) (Rao '99: note the Introductory paragraph, and the paragraph titled, "Summary of Java RMI").

It would have been obvious to a person having ordinary skill in the art to utilize RMI as disclosed by Rao '99 for the means of XML transport means in the Belfiore '425 and Willis '99 combination. The motivation to combine is suggested by Rao '99 which discloses the advantage of using RMI includes ease of use in implementing distributed systems such as that of the Belfiore '425 and Willis '99 combination (Rao '99: paragraph titled, "RMI at a glance").

Claim 17:

Regarding Claim 17, Belfiore '425, Willis '99, and Rao '99 in combination disclose all the limitations of Claim 16 (supra). Additionally, Belfiore '425, Willis '99, and Rao '99 in combination disclose the access means associated with a requesting application finds a user unique DTD in the central server means using information about the basic general agreement provided from the requesting application, and in that the user unique DTD is validated against a request represented by a filled in XML form, to establish if a current request is allowed or not (Belfiore '425: paras [0018] and [0019] – note the "mega-store" of Belfiore '425 protected by a security infrastructure, and further note user preferences stored in schema).

***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- U.S. Patent No. 6,704,745 issued to Della-Libera et al., "Transforming Data Between First Organization in a Data Store and Hierarchical Organization in a Dataset." Reference discloses the notion of a .NET (TM) implementation of an OLEDB (TM) Provider. The first organization is that of a relational set of tables and the second organization refers to an XML data island.
- Pankowski, Tadeusz, "XML-SQL: An XML Query Language Based on SQL and Path Tables", 2002, Chair of Control, Robotics and Computer Science, Poznan University of Technology. Reference (date is too late), provides a significant bibliography for alternative XML query languages.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J.D. Santos whose telephone number is 703-305-0707.

The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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May 26, 2004

  
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